

## REMARKS

This is intended as a full and complete response to the Office Action dated May 6, 2005, having a shortened statutory period for response set to expire on August 6, 2005. Please reconsider the claims pending in the application for reasons discussed below.

Claims 57-68 stand withdrawn by the Examiner. Claims 1-56 are rejected by the Examiner. Reconsideration of the rejected claims is requested for reasons presented below.

Claims 1-45, 47, 49-53, and 55 remain pending in the application after entry of this response. Claims 46, 48, 54, and 56-68 have been canceled without prejudice. Claims 1, 27, 30, 42, 45, 47, 49-53, and 55 have been amended. No new matter has been added by the amendments.

### ***Claim Rejections – 35 USC § 103***

Claim 1-56 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Chapman* (5,504,491), *Tubel* (5,730,219) and in view of *Yamazaki* (6,867,752). Claims 46, 48, 54, and 56 have been canceled.

Regarding claims 1-26, *Tubel* does not teach, suggest, or disclose “securing a portable data communications attachment to an on-site person at the drilling rig,” as recited in claim 1. *Tubel*'s primary teaching is that of an automated downhole control system for production of a completed offshore well:

More particularly, this invention relates to a method and apparatus for automatically controlling petroleum production wells using downhole computerized control systems.

(Col. 1, lines 14-17.) *Tubel* is so serious about automating control of offshore production that he goes as far as advocating elimination of a production platform:

For example, as mentioned, all of these prior art systems generally require a surface platform at each well for supporting the control electronics and associated equipment. However, in many instances, the well operator would rather forego building and maintaining the costly platform. Thus, a problem is encountered in that use of present surface controllers require the presence of a location for the control system, namely the platform.

(Col. 3, line 60, col. 4, line 1.) While advocating the elimination of the production platform, *Tubel* touts five very significant advantages that would be obtained by a fully

automated control system: cost savings, risk and liability savings, avoidance of delay, avoiding problems caused by failure of communication to the surface, and reliance of multiple wells on a single surface controller:

Presently, if a problem is detected at the well, the customer is required to send a rig to the wellsite at an extremely high cost (e.g., 5 million dollars for 30 days of offshore work). The well must then be shut in during the workover causing a large loss in revenues (e.g., 1.5 million dollars for a 30 day period).

Associated with these high costs are the relatively high risks of adverse environmental impact due to spills and other accidents as well as potential liability of personnel at the rig site. Of course, these risks can lead to even further costs.

Because of the high costs and risks involved, in general, a customer may delay important and necessary workover of a single well until other wells in that area encounter problems. This delay may cause the production of the well to decrease or be shut in until the rig is brought in.

Still another problem associated with known surface control systems such as the type disclosed in the '168 and '112 patents wherein a downhole microprocessor is actuated by a surface signal is the reliability of surface to downhole signal integrity. It will be appreciated that should the surface signal be in any way compromised on its way downhole, then important control operations (such as preventing water from flowing into the production tubing) will not take place as needed.

In multilateral wells where multiple zones are controlled by a single surface control system, an inherent risk is that if the surface control system fails or otherwise shuts down, then all of the downhole tools and other production equipment in each separate zone will similarly shut down leading to a large loss in production and, of course, a loss in revenue.

(Col. 4, lines 20-24; col. 4, lines 24-28; col. 4, lines 1-9; and col. 4, lines 10-15.)

*Tubel's* preferred embodiment is thus a downhole production control system that is operable without control signals from an external source:

An important feature of this invention is that the automatic control is initiated downhole without an initial control signal from the surface or from some other external source.

(Col. 4, lines 46-55). *Tubel* repeatedly emphasizes the importance of this feature at col. 5, lines 37-53 and col. 14, lines 34-45. (See also, col. 3, lines 30-53.) *Tubel's* downhole control system may also include a surface control system 24 and a remote control system 10. However, *Tubel* repeatedly maintains that the surface control system is optional because the downhole control system is self-sufficient and touts this

feature as a significant advantage of his system. Thus, by teaching that the surface control system is optional because the downhole control system is self sufficient, *Tubel* is teaching away from a combination with *Chapman* and *Yamazaki* to modify the surface control system to include a portable communications attachment for an on-site person. *Tubel* teaches an important benefit of his self-sufficient control system is elimination of rig personnel. There is also no motivation to combine the people oriented devices/systems of either *Chapman* or *Yamazaki* with *Tubel* because *Tubel* concentrates on using automation to eliminate production personnel. Thus, making such a modification would contradict the primary teaching of *Tubel*.

*Chapman* discloses a GPS system for emergency response personnel. *Yamazaki* discloses a wireless head mount display (HMD) unit for e-mail and browsing the Internet. Neither reference suggests any application to the oilfield industry. Further, *Chapman*, *Tubel*, and *Yamazaki*, either alone or in combination, do not teach, suggest, or disclose “remotely monitoring drilling activities at the drilling rig.” Therefore, claim 1 is patentable over *Chapman*, *Tubel* and in view of *Yamazaki*. Claims 2-26 are also patentable over *Chapman*, *Tubel* and in view of *Yamazaki* since they depend from claim 1.

Regarding claims 27-45, *Chapman*, *Tubel*, and *Yamazaki*, either alone or in combination, do not teach, suggest, or disclose either a “portable communications attachment comprising ... an external camera,” as recited in claim 27 or the act of “securing a communications attachment having an external camera to an on-site personnel,” as recited in claim 42. *Yamazaki* discloses an internal camera for tracking eye movements for a pointer in his HMD unit. Further, as discussed above, *Tubel* teaches away from a combination with *Chapman* and *Yamazaki* to modify his surface control system in any way. Therefore, claims 27 and 42 are patentable over *Chapman*, *Tubel* and in view of *Yamazaki*. Claims 28-41 and 43-45 are also patentable over *Chapman*, *Tubel* and in view of *Yamazaki* since they depend from claims 27 and 42, respectively.

Regarding claims 47, 49-53, and 55, *Chapman*, *Tubel*, and *Yamazaki*, either alone or in combination, do not teach, suggest, or disclose either a “wide area network coupled to the communications device, the wide area network established between the

wellsite location and the off-site location,” as recited in claim 47 or “establishing communications between an off-site location and the well-site location via a wide area network,” as recited in claim 50. As discussed above, *Tubel* teaches away from a combination with *Chapman* and *Yamazaki* to modify his surface control system in any way and neither *Chapman* nor *Yamazaki* reference suggests any application to the oilfield industry. Therefore, claims 47 and 50 are patentable over *Chapman*, *Tubel* and in view of *Yamazaki*. Claims 49 and 51-53 and 55 are also patentable over *Chapman*, *Tubel* and in view of *Yamazaki* since they depend from claims 47 and 50, respectively.

### ***Conclusion***

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to the Applicant's disclosure than the primary references cited in the office action. Therefore, Applicant believes that a detailed discussion of the secondary references is not necessary for a full and complete response to this office action.

In conclusion, the references cited by the Examiner, alone or in combination, do not teach, show, or suggest the invention as claimed. Having addressed all issues set out in the office action, Applicant respectfully submits that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,

  
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